

**REMARKS**

***Specification Amendments***

The amendment made herein is to more accurately specify the priority claim in the specification of the instant patent application. Applicant requests entry of this amendment and submits that no new matter is added as a result of this amendment.

***Claim Amendments***

Claims 10 and 23-44 are pending. Claims 2-5 and 8-9 are canceled without prejudice or disclaimer. Applicant reserves the right to file divisional or continuation patent applications drawn to cancelled subject matter. Claim 10 has been amended. Claims 23-44 have been added. Support for the amendments can be found throughout the specification and the original claims as filed, for example at page 1, lines 18-22; page 2, lines 9-17; page 3, lines 5-20; page 4, lines 3-16; page 5, lines 23-27; page 6, line 31 to page 8, line 11; page 10, line 14-16; page 11, lines 11-28; and Examples 1-5. Applicant respectfully requests entry of this amendment and submits that no new matter has been added.

***Rejections under 35 U.S.C. § 112, Second Paragraph***

Claim 10 stands rejected under 35 U.S.C. § 112, second paragraph as allegedly being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Without acquiescing to the rejection, Applicant submits that the claim amendments have rendered this ground for rejection *moot*. Reconsideration and withdrawal of this rejection are respectfully requested.

***Claim Rejections Under 35 U.S.C. § 103(a)***

Claims 2-5 and 8-10 were rejected under 35 U.S.C. § 103 as being obvious over U.S. Patent No. 7,385,024 (Ferrandis, *et al.*) (“the ’024 patent”) in view of Campbell (1993) Biology 3<sup>rd</sup> Ed. (“Campbell”) and Sambrook, *et al.* (2001) Molecular Cloning Volume 2 Protocol 1 (“Sambrook”). Applicant traverses this rejection.

The ’024 Patent does not teach any of the claimed polynucleotides

The only sequences disclosed by the ’024 patent are short polypeptides (SEQ ID NO: 1, 2, and 3—10, 14, and 6 residues, respectively). *See, e.g.*, the ’024 patent at col. 1, lines 46-51. The ’024 patent does not disclose any polynucleotide sequences. Neither Campbell nor Sambrook remedies this deficiency. None of the cited references teach or suggest the isolated polynucleotides of the nucleic acid sequences of SEQ ID NO: 4, 5, 8, 9, 11, 12, and 13. Nor would it be obvious to a person of ordinary skill in the art to derive the instantly claimed full-length polynucleotides (*e.g.*, SEQ ID NO: 8, 9, and 13) or the primer pairs (*e.g.*, SEQ ID NO: 4 and 5, SEQ ID NO: 11 and 12) from short N-terminal amino acid sequences.

The Examiner cites the Specification against the claims as prior art

Applicant submits that the Examiner appears to be citing the specification against the claims as prior art. The recitation of the relationship between SEQ ID NO: 10, SEQ ID NO.:8 and SEQ ID NO: 9 in the paragraph spanning page 6 and 7 of the Office Action is a direct quote from the specification at page 2, lines 4-8. No such disclosure is made in the ’024 patent, Campbell, or Sambrook. Further, a protein sequence for heterocarpin (*e.g.*, SEQ ID NO: 10) and the recitation of the primer pairs of SEQ ID NO: 4/5 and 11/12 are taught by the instant specification and not by the ’024 patent. In fact, the sequences of SEQ ID NO: 8, 9, and 10 as well as the primer pairs of SEQ ID NO: 4/5 and 11/12 were unknown until their disclosure by the applicant in the instant specification. *See* SEQUENCE LISTING of the instant application. In contrast, the ’024 patent only discloses short polypeptide sequences (*e.g.*, SEQ ID NO: 1, 2, and 3). The ’024 patent at col. 1, lines 46-51. *See also* the ’024 patent at SEQUENCE LISTING. Therefore, it was not possible (until disclosure by Applicant) to use the protein sequence for heterocarpin and primer sets SEQ ID NO: 4/5 and 11/12 to obtain a cDNA and ORF of heterocarpin as well as subcloning the cDNA and ORF into an expression vector.

Cloning methods combined with partial amino acid sequences does render claims obvious

Applicant also submits that the combination of references teaching a method of cloning, together with a reference disclosing partial amino acid sequence does not render claims *prima facie* obvious. In *In re Deuel*, the Federal Circuit held that, “the existence of a general method of isolating cDNA or DNA molecules is essentially irrelevant to the question whether the specific molecules themselves would have been obvious, in the absence of other prior art that suggests the claimed cDNAs.” 51 F.3d 1552, 34 USPQ2d 1210 (Fed. Cir. 1995). In this case, the Federal Circuit overturned an obviousness rejection of a full length cDNA where the rejection relied on a reference taught the molecular weight of a protein and the first 19 amino acids in combination with Maniatis, a reference that disclosed general molecular biology protocols. *Id.* at 1556-1557, 1213. In particular, the Federal Circuit ruled that the “relationship between proteins and nucleic acids does not overcome the deficiencies” of a reference that only discloses a partial sequence used in conjunction with a reference disclosing cloning protocols. The Federal further held that “knowledge of a protein does not give one conception of a particular DNA encoding it.” *Id.* at 1560, 1215. Here, the ’024 patent, at most, discloses partial amino acid sequences of a heterocarpin protein and does not provide the full-length sequence of the protein or any nucleic acid sequence. Nor is there anything in any of the three references to lead one to the particular claimed nucleic acid sequences or indicate how it could be isolated. *See e.g., Id.* at 1560, 1215. Therefore Applicant, submits that no information disclosed by the ’024 patent, Campbell, or Sambrook, alone or in combination, teaches or suggests the sequences of the claimed polynucleotides.

The ’024 patent is not applicable in an obviousness rejection under 35 U.S.C. § 103(c)

Even if the Examiner does not agree with the Applicant’s analysis regarding the non-obviousness of the claimed invention, Applicant submits that the ’024 patent is not applicable under 35 U.S.C. § 103(c). The M.P.E.P. states that a reference may be disqualified under 35 U.S.C. § 103(a) if, “the subject matter which would otherwise be prior art to the claimed invention and the claimed invention must be commonly owned, or subject to an obligation of assignment to a same person, at the time the claimed invention was made...” *See* M.P.E.P. § 706.02(1)(2). In the instant case, Applicant’s representatives assert that the instant application

and the '024 patent were, at the time the invention was made, owned by, or subject to an obligation of assignment to, the same person. *See* Statement of Common Ownership pursuant to M.P.E.P. § 706.02(1)(2). Both the instant application and the '024 patent are assigned to Societe de Conseils de Recherches et d'Applications Scientifiques. Therefore, the '024 patent is not a valid reference pursuant to 35 U.S.C. § 103(c).

Finally, Applicant submits that each and every claim limitation is not taught by the '024 patent either alone, or in combination with Campbell or Sambrook. Therefore, Applicant respectfully requests withdrawal of this rejection.

**CONCLUSION**

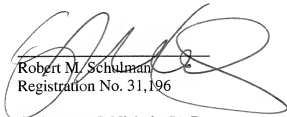
It is believed that these amendments and remarks should place this application in condition for allowance. A notice to that effect is respectfully solicited. If the Examiner has any questions relating to this response or the application in general he is respectfully requested to contact the undersigned so that prosecution of this application may be expedited.

Respectfully submitted,

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